

REMARKS / ARGUMENT

A. INTRODUCTION

In the office action having a mailing date of November 26, 2003, the Examiner rejected Claims 1-5, 9-13 under 103(a) as being unpatentable over US Patent No. 5,758,083 to Singh ("Singh") in view of U.S Patent No. 6,480,595 to Hamano ("Hamano"); rejected Claims 6-7, 14-15 under 103(a) as being unpatentable over Singh and in view of Hamano and US patent no. 6,466,941 to Rowe et al. ("Rowe"); and rejected Claims 8 and 16 under 103(a) as being unpatentable over Singh in view of Hamano, Rowe, and US patent no. 5,029,206 to Martino Jr. et al ("Marino").

In the advisory action having a mailing date of February 3, 2004, the Examiner advised that the request for reconsideration has been considered but does not place the application in condition for allowance because "Although applicant has pointed out the combination of Singh and Harmano would effectively destroy the benefits sought to be achieved by implementing a Virtual Private Network. However, the only limitation Singh does not teach is 'wherein the member network includes a group of one or more virtual private networks', VPN is a non-physical network such as a software implementation of a hardware device, and it is known that hardware and software are logically equivalent. Therefore it is obvious for a personal [sic] with ordinary skill in the art to have a VPN to be implemented in Singh's invention."

B. CLAIMS 1-5, 9-13 ARE PATENTLY DISTINGUISHABLE

Regrettably, the Applicant must respectfully assert that the Examiner has improperly resolved the issue of motivation to combine references based on a subjective belief and

unknown authority. *In re Lee*, 277 F.3d 1338, 61 USPQ 2d 1430, 1434 (Fed. Cir. 2002) (quoting *W.L. Gore v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983)). The Applicant respectfully asserts that with the establishment of the well known distinctions between a virtual private network (VPN) and a virtual local area network (VLAN) and the well known distinctions between a virtual private network and a private network, there is no basis the Examiner has provided for combining the cited references.

Virtual Private Networks Distinguished from Virtual Networks such a VLAN

The Applicant respectfully suggests that in the Examiner characterizing a VPN as "... a non-physical network such as a software implementation of a hardware device..." the Examiner has inappropriately assigned attributes of a virtual local area network to a VPN. Applicant respectfully asserts that it is well known in the art that a VPN is distinguishable from a virtual, or logical, local area network (LAN) in that a virtual LAN (VLAN) is a local network with a definition that maps network nodes on a basis other than geographic location. Such typical alternative bases include definitions based on department, type of user, or primary application. Typically, the VLAN management software is enabled to change, add and delete network nodes and manage load balancing and bandwidth allocation more easily than with a physical picture of the LAN. Also typically, network management software keeps track of relating the virtual picture of the LAN with the actual physical arrangement. Since a VLAN and VPN are distinguishable, the Applicant respectfully asserts that attributions of a VLAN to a VPN provide an inappropriate basis upon which to make an obviousness rejection.

Virtual Private Networks Distinguished from Private Networks

The Examiner has asserted in the Advisory Action of February 3, 2004, that a "VPN is a non-physical network such as a software implementation of a hardware device, and it is known that hardware and software are logically equivalent." The Applicant respectfully asserts that it is well known in the art that a virtual private network (VPN) is a way to use

a public telecommunication infrastructure, such as the Internet, to provide remote sites with secure access to their organization's network and that a VPN is readily distinguishable from a private network. A VPN works by using the shared public infrastructure while maintaining privacy through security procedures and tunneling protocols such as the Layer Two Tunneling Protocol. In effect, the protocols, by encrypting data at the sending end and decrypting data at the receiving end, send properly encrypted data that will be segregated from data that is not properly encrypted. A VPN can be contrasted with private network system having owned or privately operated network segments that are used by a single organization. Relative to the public telecommunication infrastructure, the network segments of a private network are behind a gateway/firewall. While encryption of transmissions may be practiced, they are not required to maintain private communications within the private network.

A VPN is a physical network spanning public network elements having encrypted transmissions. It is by the encryption that one achieves a level of privacy on par with a private local area network that typically exists behind a gateway/firewall. The Applicant respectfully asserts that even though a VPN works to provide the privacy of a private network, it is doing so with a different structure, i.e., public instead of private network segments. Since the VPN fails to embody the same structural composition as that of a private network, the similarities in functional characteristics are not pertinent to the determination of obviousness of the presently claimed invention. *In re Mills*, 16 USPQ 2d 1430, 1432-33 (Fed. Cir. 1990). (It is not pertinent whether the prior art device possess the functional characteristics of the claimed invention if the reference does not describe or suggest its structure.)

Further, the Applicant respectfully asserts that Examiner has based his reasoning for finding the request for reconsideration to not place the application in a condition for allowance on a *non sequitur* when Examiner states that a "VPN is a non-physical network." Put another way, a VPN is a physical network having encrypted transmissions between remote nodes separated by at least one public network segment whereas a private network has exclusively private network segments. Accordingly, while the VPN

achieves the benefits of a private network while using at least one public segment, the encryption of the transmissions of a VPN and the private network having exclusively private network segments cannot be likened or otherwise analogized to the encryption being the software implementation of a hardware device where the hardware device is a network having exclusively private segments.

While accepting, for the sake of argument, that some hardware devices can be implemented in software being executed on general or special processors, and that such implementations would be logically equivalent to the hardware device (e.g., a signal filter), the Applicant respectfully asserts that while a VLAN may be a software implementation of a private network by way of mapping or software-based representation, a VPN is not a software implementation of a private network and therefore there can be no logical equivalency as the Examiner has asserted in the above-cited Advisory Action.

The Applicant respectfully submits that with the above argument and those made in the final action response mailed January 26, 2004, that Claims 1-5, 9-13 of the present application are novel and unobvious with respect to Singh and Hamano.

C. CLAIMS 6-7, 14-15 ARE PATENTLY DISTINGUISHABLE

Applicant submits that Claims 6-7, 14-15 are novel and unobvious with respect to the prior art in view of the arguments made immediately above.

D. CLAIMS 8 AND 16 ARE PATENTLY DISTINGUISHABLE

Applicant submits that Claims 6-7, 14-15 are novel and unobvious with respect to the prior art in view of the arguments made immediately above.

E. CONCLUSION

Applicant submits that the present application is in condition for allowance and respectfully requests that a timely Notice of Allowance be issued in this case.

Should there be any fees for this action, your office is authorized to draw from the firm deposit account number 02-3979. Should you have any questions, or identify any problem, I would appreciate a telephone call so that this matter may be resolved promptly.

Respectfully submitted,

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